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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,123	12/06/2001	Laurent Colantonio	DN2001202USA	8043

7590

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EXAMINER

FISCHER, JUSTIN R

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,123

Applicant(s)

COLANTONIO ET AL.

Examiner

Justin R Fischer

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-14 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-14 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 5 and 15 are cancelled per Amendment A on October 24, 2003.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-8, 10-14, 16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (US 5,427,166, of record) and further in view of Willard (US 5,868,190, newly cited). As best depicted in Figures 1 and 4, Willard '166 teaches a pneumatic tire construction having a chafer reinforcement fabric 27 and the following bead reinforcement structure: rubber support portion 34, rubber seat portion 26, and rubber toe portion 28. While these components are depicted as three separate portions, one of ordinary skill in the art at the time of the invention would have found it obvious to form the reinforcement as a single layer of rubber in view of Willard '190 (Column 8, Lines 25-35), in which case the single layer of rubber or "chafer" would contact the rim flange and extend axially inward and around the bead as required by the claimed invention. It is noted that Willard '190 is directed to an extremely similar tire construction as compared to that of Willard '166, wherein Willard'166 and Willard'190 describe the same three bead reinforcement portions. It is further emphasized that Willard '190 suggests a preferred construction in which the three bead reinforcement

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portions are a single, unitary layer. Thus, in view of Willard '190, one of ordinary skill in the art at the time of the invention would have found it obvious to include a chafer that contacts the rim flange and extends axially inward and around the bead core in the construction of Willard '166.

With respect to claims 2, 3, 13, and 20, the chafer reinforcing fabric of Willard '166 is depicted as extending along the outer surface of the chafer, wherein the portion of the chafer that protrudes axially outward along the rim flange is seen to constitute a rim flange protector.

As to claims 4, 12, and 14, Figures 1 and 4 depict the chafer reinforcing fabric as extending axially inward of the chafer and along the surfaces of the bead toe and the bead base.

Regarding claims 6-8, 10, 16, and 18, Willard '166 discloses the chafer reinforcing fabric as being a square woven fabric in which non-metallic fibers, such as aramid, rayon, and nylon are individually inclined at an angle of ± 45 degrees, such that the weaving angles are approximately 90 degrees. One of ordinary skill in the art at the time of the invention would have recognized that said fabric is a rubber impregnated fabric.

Regarding claim 19, the chafer reinforcing fabric of Willard '166 is formed in accordance to the limitations of the claimed invention, particularly the chafer reinforcing fabric is formed of oriented fibers and is disposed at the surface of the chafer and the rim flange.

As to claims 21 and 22, the description of a square woven fabric in Willard '166 is only exemplary- one of ordinary skill in the art at the time of the invention would have equally found it obvious to use a non woven construction to form the chafer reinforcing fabric of Willard '166 since it represents an extremely well known and conventional arrangement for tire fabric layers. Furthermore, such non woven fabric layers are commonly inclined at angle of 45 degrees such that the crossing angle is approximately 90 degrees (similar inclination arrangement to that of woven structure). It is further noted that applicant has not provided any unexpected results to establish a criticality for such an arrangement. It is emphasized that non-woven and woven fabric structures are extensively used in the construction of a variety of tire components.

4. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard '166 and Willard '190 as applied in claim 1 above and further in view of Schmidt (US 3,902,356, of record). In describing said chafer reinforcing fabric, Willard '166 suggests that said fabric is a square woven fabric formed of textile materials. While the reference fails to expressly suggest the use of monofilament fibers, one of ordinary skill in the art at the time of the invention would have readily appreciated and expected the square woven fabric of Willard '166 to be formed of monofilament fibers since such fibers are extensively used, particularly as warp elements, in the formation of square woven fabric components, as shown for example by Schmidt (Column 2, Lines 50-58). As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the square woven fabric of Willard '166 from monofilament fibers,

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there being no evidence of unexpected results to establish a criticality for such a construction.

Response to Arguments

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection. Applicant contends that Willard '166 fails to teach a chafer that extends radially outward of the bead on both sides of the bead. The examiner agrees that Willard '166, as best depicted in Figure 2, fails to suggest a chafer component as defined by the claimed invention- the reference teaches the inclusion of a plurality of bead reinforcing components 34, 26, 28 but fails to define a single chafer that extends radially outward of the bead on both sides of the bead. However, Willard '190 defines an extremely similar tire construction and suggests that the bead reinforcing components are preferably formed as a single unit construction- in this instance (Figure 2), the bead reinforcing component or chafer extends radially outward of the beads on both sides of the beads.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **571-272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Justin Fischer

December 26, 2003


JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300